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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,282	12/15/2003	Hiroaki Kisaka	245710US0CONT	9578

22850 7590 04/19/2007  
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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ZHENG, LI

ART UNIT	PAPER NUMBER
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1638

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	04/19/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/19/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## Office Action Summary

Application No.

10/734,282

Applicant(s)

KISAKA ET AL.

Examiner

Li Zheng

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14, 16, 17 and 19 is/are rejected.
- 7) ☒ Claim(s) 15 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Applicant's cancellations of claims 1-13 and 20-25, amendments to claims 14-16, as well as amendments to the specification filed on 1/23/2007 are acknowledged. As a result, claims 14-19 are currently pending and examined on the merits.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. The rejection of claim 17 under 35 U.S.C. 112 second paragraph is withdrawn due to claim amendments and cancellations.
4. The rejection of claims 1-19 for double patenting is withdrawn in light of the submission of the terminal disclaimer.
5. All the rejections of claims 1-13 and 20-25 are withdrawn due to claim cancellation.

***Specification***

6. Specification remain objected to under 37 CFR 1.821(d) as failing to refer to a sequence by use of the sequence identifier, preceded by "SEQ ID NO:" in the text of the specification.

Applicants' amendment to the specification is acknowledged. However, the nucleotide sequence in the upper line of Figures 1 and 2 is incorrectly referred to as a fragment of SEQ ID NO: 1. It is suggested to refer the nucleotide sequence in the upper line of Figures 1 and 2 as SEQ ID NO: 1 with the specified region being deleted.

***Claim Objections***

7. Claims 15 and 18 are objected to because they are dependent on a rejected claim.

***Claim Rejections - 35 USC § 103***

8. Claims 14, 16, 17 and 19 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Lightfoot et al. in view of de Castro Silva Filho et al. and An et al., for the reasons of record stated in the Office action mailed August 23, 2006. Applicants traverse in the paper filed January 23, 2007. Applicants' arguments have been fully considered but were not found persuasive.

Applicants argue that none of the references teach increased weight of potato tubers (response, page 6, paragraphs 4-7), and that there is simply no suggestion in any of the references considered individually or in combination that expression of a GDH gene in a potato would lead to increased tuber weight (response, page 7, 2<sup>nd</sup> paragraph). However, Applicants are reminded that Lightfoot et al. teach that *gdhA* can be used to increase starch content of crops such as corn, POTATO and tomato (column 29, lines 18-20, emphasis added). Therefore, it would have been obvious to combine the teachings of the references and produce a transgenic potato expressing *gdhA* gene with an increased starch content. As the same method steps are performed, such transgenic potato would obviously exhibit increased weight of potato. Applicants argue that the Office cannot simply dismiss the result as "inherent" when none of the cited reference disclose the claimed transgenic potato (page 6, last paragraph). However, Applicants fail to present argument as to why the transgenic potato expressing *gdhA* gene with an increased starch content would not exhibit increased weight. The method of the combined references has the same steps as the claimed method. Further, if additional limitations (e.g. a particular *gdhA* gene) not taught by the references are required to produce the claimed transgenic potato, they should be included in the claims.

### ***Summary***

Claims 14, 16, 17 and 19 are rejected.

Claims 15 and 18 are objected to.

No claim is allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

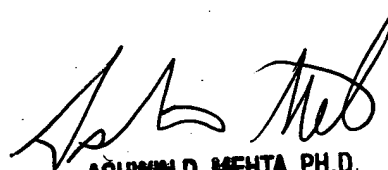
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li Zheng whose telephone number is 571-272-8031. The examiner can normally be reached on Monday through Friday 9:00 AM - 5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on 571-272-0975. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ASHWIN D. MEHTA, PH.D.  
PRIMARY EXAMINER